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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,974	03/10/2004	Koichi Yata	04329.3261	2232

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EXAMINER
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KAO, WEI PO ERIC

ART UNIT	PAPER NUMBER
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2609

MAIL DATE	DELIVERY MODE
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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/795,974

**Applicant(s)**

YATA ET AL.

**Examiner**

Wei-po Kao

**Art Unit**

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date  
:03/10/2004,03/16/2005,07/26/2005 .

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Specification*

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Rejection - 35 USC § 103*

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.

Art Unit: 2609

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claims 1-4 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekudden et al, U.S. Patent No 6163577 in view of Kisor, U.S. Patent/Publication No 6782429.

For Claim 1, Ekudden et al teach that **an electronic apparatus comprising: an encoder that encodes source data to generate transmission data; a communication device that transmits the transmission data generated by the encoder to an external device (see Abstract, Figure 4); means for determining a quality with which the source data is to be transmitted (see Column 3 Line 9-30); and means for controlling the encoder to vary an amount of the generated transmission data on the basis of the determined quality (see Figure 5-7, Column 3 Line 31-35).** For Claim 2, Ekudden et al teach that **the electronic apparatus according, wherein the controlling means includes means for setting in the encoder a value of sampling frequency, which is to be used in the encoding of the source data, in accordance with the determined quality (see Column 3 Line 31-35).** For Claim 3, Ekudden et al teach that **the electronic apparatus, wherein the controlling means includes means for setting in the encoder a kind of an encoding scheme, which is to be used in the encoding of the source data, in accordance with the determined quality (see Abstract, Figure 6-10 e.g. the invention of Ekudden et al provides an encoding scheme for selecting source data to encode and transmit in accordance with determined quality of data).** For Claim 4, Ekudden et al teach that **the electronic apparatus, wherein the controlling means includes means for setting in the**

Art Unit: 2609

encoder a kind of an encoding scheme, which is to be used in the encoding of the source data, and a value of sampling frequency, which is to be used in the encoding of the source data, in accordance with the determined quality (claim 4 discloses no further limitation than claims 2 and 3, thus is rejected with the same reasoning as for claims 2 and 3 disclosed in the same paragraph).

For Claims 1, 2, 3, 4 Ekudden et al do not teach that **the apparatus comprising: determining the quality in accordance with a type of the source data.**

For Claims 1, 2, 3, 4 Kisor teaches that **the apparatus comprising: determining the quality in accordance with a type of the source data** (see Abstract).

Claims 8-11 are program claims corresponding to the apparatus claims 1-4 respectively, and are therefore rejected under the same reason set forth in this paragraph.

Ekudden et al and Kisor are analogous art because they are from the same field of providing a system and method of selecting source data in accordance to the characteristics of the source data and transmitting the selected data in a communication network environment.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to add the ability of determining quality according to the source data type from Kisor in addition to the quality determining functionality of Ekudden's invention.

The motivation would have been that it is desired to maintain the quality of service of various communication data through out the entire communication process; for example, if transmission of data relies on only one quality of service parameter, quality of service of different type of data such as voice and video will suffer.

Therefore, it would have been obvious to combine Ekudden et al and Kisor to obtain the claims 1-4 and 8-11.

Art Unit: 2609

7. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekudden et al, U.S. Patent No 6163577 and Kisor, U.S. Patent/Publication No 6782429 as applied to claim 1 above, and further in view of Samaras et al U.S. Publication No 20040233903.

For Claim 5, Ekudden et al and Kisor teach all limitations as disclosed in the paragraph 6 of this application except that **the electronic apparatus, further comprising a plurality of input devices capable of inputting data, wherein the quality determining means includes means for detecting the type of the source data by determining from which of the input devices the source data is input.**

For Claim 5, Samaras et al teach that **the electronic apparatus, further comprising a plurality of input devices capable of inputting data** (see Paragraph [0001] [0010] [0040] e.g. multiple users in the EDGE network refers to multiple cellular devices), **wherein the quality determining means includes means for detecting the type of the source data by determining from which of the input devices the source data is input** (see Abstract, Figure 7, Paragraph [0001] [0110] e.g. to encode more than one packets from a same user into one packet requires picking out all the packets belonging to a same user as the same type of packet first).

Claim 12 is a program claim corresponding to the apparatus claim 5, and is therefore rejected under the same reason set forth in this paragraph.

Ekudden et al, Kisor and Samaras are analogous art because they are from the same field of providing an encoding system and method in a communication environment.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the encoding scheme from Samaras et al in the encoding system and method of Ekudden et al.

The motivation would have been that quality of transmission is improved due to those repetitive headers of packets belonging to a source can be reduced, which further reduce chance of errors occurring in transmission and increase the transmission throughput.

Art Unit: 2609

Therefore, it would have been obvious to combine Ekudden et al, Kisor and Samaras to obtain the claims 5 and 12.

8. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekudden et al, U.S. Patent No 6163577 and Kisor, U.S. Patent/Publication No 6782429 as applied to claim 1 above, and further in view of Lozano U.S. Patent No 6920118 and Ben-Eli, U.S. Publication No 20040023660.

For Claim 6, Ekudden et al and Kisor teach that **the quality determining means includes: means for determining the quality with which the source data is to be transmitted, on the basis of the type of the source data** (see Kisor Abstract).

For Claim 6, Ekudden et al and Kisor do not teach that **the electronic apparatus, wherein the communication device includes a wireless communication device that executes communication with the external device via a wireless network.**

For Claim 6, Lozano teach that **the electronic apparatus, wherein the communication device includes a wireless communication device that executes communication with the external device via a wireless network** (see Abstract, Figure 1).

Ekudden et al, Kisor and Lozano are analogous art because they are from the same field of providing a system and method of selecting source data in accordance to the characteristics of the source data and transmitting the selected data in a communication network environment.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the wireless encoding scheme from Lozano in the encoding system and method of Ekudden et al.

The motivation would have been that it is desired to have an encoding system and method that is also suitable to handle multiple user data in a wireless communication environment and be able to maintain different desired quality requirement, especially wireless communication environment is less predictable than a wired environment.



Art Unit: 2609

Therefore, it would have been obvious to combine Ekudden et al, Kisor and Lozano to obtain the limitations of claim 6.

For Claim 6, Ekudden et al, Kisor and Lozano teach all the limitations except that **the quality determining means includes: means for detecting a number of devices connected to the wireless communication device via the wireless network; and means for determining the quality with which the source data is to be transmitted, on the basis of the detected number of devices.**

For Claim 6, Ben-Eli teach that **the quality determining means includes: means for detecting a number of devices connected to the wireless communication device via the wireless network** (see Abstract e.g. to rank users, the number of users is detected); **and means for determining the quality with which the source data is to be transmitted, on the basis of the detected number of devices** (see Abstract, Paragraph [0017]).

Claim 13 is a program claim corresponding to the apparatus claim 6, and is therefore rejected under the same reason set forth in this paragraph.

Ekudden et al, Kisor, Lozano and Ben-Eli are analogous art because they are from the same field of providing a system and method of selecting source data in accordance to the characteristics of the source data.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the source allocation scheme to the source data from Ben-Eli in the encoding system and method of Ekudden et al.

The motivation would have been that it is desired to allow maximum amount of source data, which yields maximum throughput, to be transmitted with desired quality of transmission still being maintained.

Therefore, it would have been obvious to combine Ekudden et al, Kisor, Lozano and Ben-Eil to obtain the claims 6 and 13.

Art Unit: 2609

9. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekudden et al, U.S. Patent No 6163577 and Kisor, U.S. Patent/Publication No 6782429 as applied to claim 1 above, and further in view of Lozano U.S. Patent No 6920118 and Bishard, U.S. Publication No 20030165148.

For Claim 7, Ekudden et al and Kisor teach that **the electronic apparatus comprising: the source data includes audio data** (see Kisor Abstract, Figure 2 Element 54).

For Claim 7, Ekudden et al and Kisor do not teach that **the electronic apparatus, wherein the communication device includes: a wireless communication device that executes communication with the external device via a wireless network; means for determining whether a device that transmits data is connected to the wireless communication device via the wireless network** (before a wireless device is able to communicate with another device, establishment of communication between the two has to be acknowledged first, thus either one of the two knows whether or not the other device is connected via a wireless network).

For Claim 7, Lozano teach that **the electronic apparatus, wherein the communication device includes a wireless communication device that executes communication with the external device via a wireless network** (see Abstract, Figure 1); **means for determining whether a device that transmits data is connected to the wireless communication device via the wireless network** (before a wireless device is able to communicate with another device, establishment of communication between the two has to be acknowledged first, thus either one of the two knows whether or not the other device is connected via a wireless network).

Ekudden et al, Kisor and Lozano are analogous art because they are from the same field of providing a system and method of selecting source data in accordance to the characteristics of the source data and transmitting the selected data in a communication network environment.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the wireless encoding scheme from Lozano in the encoding system and method of Ekudden et al.

Art Unit: 2609

The motivation would have been that it is desired to have an encoding system and method that is also suitable to handle multiple user data in a wireless communication environment and be able to maintain different desired quality requirement, especially wireless communication environment is less predictable than a wired environment.

Therefore, it would have been obvious to combine Ekudden et al, Kisor and Lozano to obtain the limitations of claim 7.

For Claim 7, Ekudden et al, Kisor and Lozano teach all the limitations except that **the quality determining means includes means for determining, when the device that transmits a kind of data is connected to the wireless communication device, the quality with which the source data is to be transmitted, such that transmission of the kind of data is executed with priority over transmission of the source data.**

For Claim 7, Bishard teaches that **the quality determining means includes means for determining, when the device that transmits a kind of data is connected to the wireless communication device, the quality with which the source data is to be transmitted, such that transmission of the kind of data is executed with priority over transmission of the source data** (see Abstract, Paragraph [0007] [0012] [0016] [0021]).

Claim 14 is a program claim corresponding to the apparatus claim 7, and is therefore rejected under the same reason set forth in this paragraph.

Ekudden et al, Kisor, Lozano and Bishard are analogous art because they are from the same field of providing a system and method of selecting source data in accordance to the characteristics of the source data.

At the time of the invention, it would have been obvious to a person ordinary skill in the art to implement the source allocation scheme to the source data from Bishard in the encoding system and method of Ekudden et al.

Art Unit: 2609

The motivation would have been that it is desired to allow source data with different priority to be transmitted accordingly with minimum delay and without congestion, which further yields maximum throughput and that the desired quality of transmission still being maintained.

Therefore, it would have been obvious to combine Ekudden et al, Kisor, Lozano and Bishard to obtain the claims 7 and 14.

### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McCune, Jr. U.S. Publication No 20020081977, Raisanen, U.S. Publication No 20040125797 and Lohtia et al, U.S. Publication No 20030112784 are cited to show methods of determining quality according to characteristics of source data.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wei-po Kao whose telephone number is (571)270-3128. The examiner can normally be reached on Monday through Friday, 8:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dong Ton can be reached on 571-272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

W.K.

  
DANG T. TON  
SUPERVISORY PATENT EXAMINER